AF

Atty. Dkt. No. 040356-0591

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant:	Atsushi OHMA
Title:	FUEL CELL STACK
Appl. No.:	10/582,222
International Filing Date:	11/25/2004
371(c) Date:	06/08/06
Examiner:	Stephen J. Yanchuk
Art Unit:	1729
Confirmation Number:	3852

REPLY BRIEF

Mail Stop Appeal Brief - Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In reply to the November 10, 2010 "Examiner's Answer to the Appellant's Brief on Appeal," Appellant submits the following additional remarks. These additional remarks are directed solely to the following section of the Examiner's Answer:

(9) Grounds of Rejection

Applicant respectfully disagrees with the Examiner's technical interpretation of the Knights reference.

First, Knights simply does not disclose a "first region" and a "second region".

Second, Knights is also silent as to any relationship between the "first region" (i.e., "higher temperature" region) and the gas diffusion at the gas diffusion electrode.

Third, Knights increases the width of the flow passage at the outlet as compared with the inlet. However, this structure is made in consideration of the fact that the reactant

concentration decreases and the water content increases at the outlet. Knights intends to provide greater access to the catalyst layer and better water removal at the outlet by adopting this structure (*see* paragraph [0032] of Knights). There is no relation to this structure with the temperature distribution in the fuel cell stack.

Fourth, in the fuel cell stack of Knights, the gas diffusion would increase towards the outlet due to the above-mentioned flow passage structure. On the contrary, the temperature would become high at the center region of the fuel cell stack as in the conventional fuel cell stack.

Fifth, there is a difference relating to the respective sectional areas of the passages in the claimed invention and as disclosed in Knights, as set forth in two of the dependent claims. According to pending claims 15 and 16, the sectional area of the gas passages adjacent to the first region is larger than the sectional area of the gas passages adjacent to the second region. In other words, the sectional area of the gas passage varies. In contrast, Knights discloses a substantially constant sectional area of the gas passage itself between the inlet and the outlet (see claim 1 of Knights).

In summary, Applicant respectfully submits that this means that Knights fails to disclose the feature of the present invention that configures the gas passages, the ribs, etc., so that the gas diffusion is improved in the recited "first region" (i.e., the higher temperature region).

CONCLUSION

For the reasons set forth in the Appeal Brief and this Reply Brief, Applicant respectfully submits that the pending rejections should be reversed.

Respectfully submitted,

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By Michael D. Kaminski

FOLEY & LARDNER LLP
Customer Number: 22428
Telephone: (202) 672-5490
Facsimile: (202) 672-5399

Michael D. Kaminski
Attorney for Applicant
Registration No. 32,904